amped | wireless

User's Guide

High Power Wireless-N 600mW Smart Router

R10000

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INTRODUCTION

Thank you for purchasing this Amped Wireless product. At Amped Wireless we strive to provide you with the highest quality products through innovation and advanced technology. We pride ourselves on delivering products that outperform the competition and go beyond your expectations. If you have any questions please feel free to contact us. We'd love to hear from you and thank you for your support!

Email: sales@ampedwireless.com

Call: 888-573-8830

Web: www.ampedwireless.com

GETTING STARTED

Package Contents

Check to make sure you have all the contents within your package:

- High Power Wireless-N 600mW Smart Router
- Two Detachable 5dBi High Gain Antennas
- 2 x RJ-45 Ethernet Cable
- Power Supply
- Setup Guide
- CD: User's Manual, Installation Video, Setup Guide, Wi-Fi Analytics Android App
- Vertical Mounting Base

LED Indicators

(From top to bottom)

Power: Indicates when the High Power Router is powered on. The LED will stay lit when the power adapter is plugged into the router.

Wireless Activity: Blinks rapidly when wireless data traffic is transmitted or received over the wireless network.

Internet Connection: Indicates when the High Power Router is connected to a broadband modem. The LED will blink when Internet traffic is transmitted or received.

Wired Ports 1-4: Indicates when a networking device is connected to a wired port on the back of the High Power Router. The LED blinks rapidly when wired data traffic is transmitted or received.

WPS: Wi-Fi Protected Setup activity. When the WPS mode is activated the WPS LED blinks as it awaits a connection.

Back Panel Description

Antenna Connectors (1-2): RJ-SMA antenna connectors. Compatible with all antennas with RP-SMA connectors.Upgradable to high gain antennas for more range.

Reset: Push down once to reboot the High Power Router. Hold down for 5-10 seconds to reset the router back to factory settings.

WPS: Hold down for 3 seconds to enable WPS push button configuration.

Wired Devices: RJ-45 ports for connecting to wired computers or network devices.

Modem: RJ-45 port for connecting to your Broadband Modem.

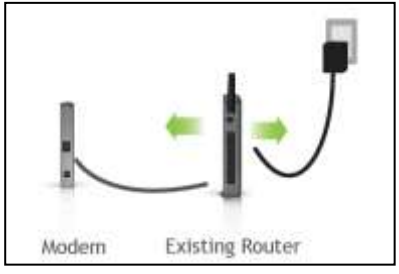
Power: Power adapter port. DC 12V 1A.

SETUP GUIDE

Setup Preparations

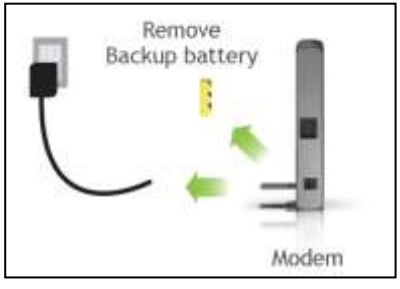
Disconnect and Power Off your Existing Router

Disconnect your existing router from your computer, your broadband modem and its power outlet. If you do not have an existing router please continue to the next step.



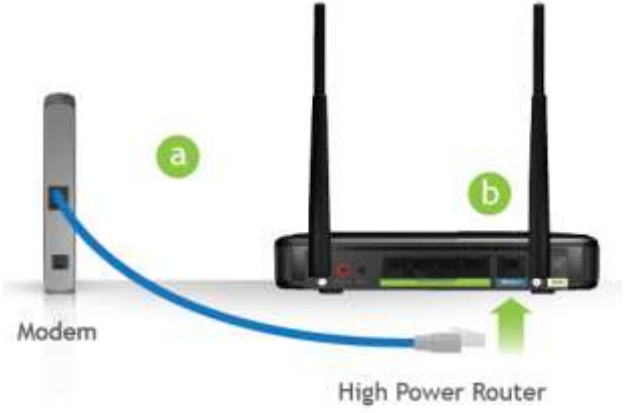
Power Off your Modem

Power off the Modem by disconnecting the Modem's power adapter from the power outlet. If your Modem has a backup battery, remove the backup battery from your Modem. Do NOT power on the Modem until prompted at a later step.



Connect the High Power Router to your Modem

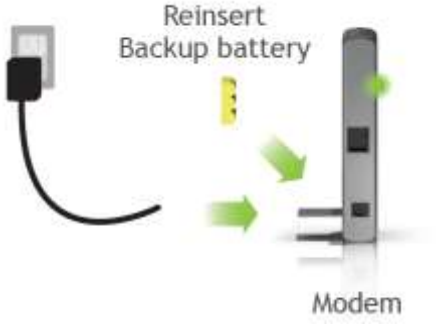
Do NOT connect the power adapter to the High Power Router at this time



a) Use the included Ethernet cable and connect one end of the cable to your Modem
b) Connect the other end of the cable to the blue "Modem" port on the High Power Router

Power on your Modem

Plug in your Modem's power adapter and backup battery (if available):



Power On the High Power Router and Connect it to your Computer

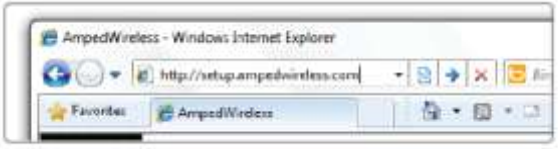
a) Attach the antennas of the High Power Router to the antenna ports labeled 1 and 2
b) Connect the included grey network cable to an available port on your computer
c) Attach the power adapter to the High Power Router's PWR port and a power outlet

Open your Web Browser to Access the Setup Wizard

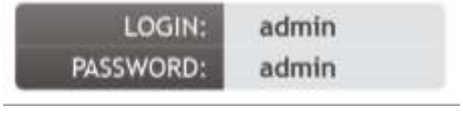
a. Open your web browser.

b. Type in: http://setup.ampedwireless.com into the web address bar.

c. If the web menu fails to open, type in the following IP address into your web address bar:http://192.168.1.240



d. When prompted, enter the login and password



Welcome to the Smart Setup Wizard

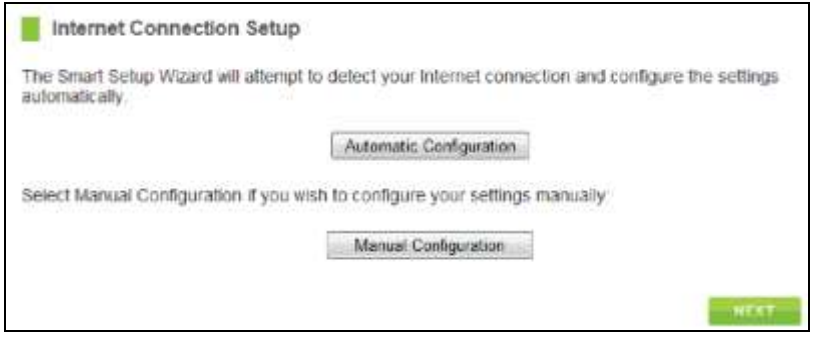
When the web menu appears, click Start to proceed with the Smart Setup Wizard.

The Smart Setup Wizard will guide you through the following settings:

1) Internet Connection
2) System Clock
3) Wireless Connection

Configure your Internet Connection

Configure your Internet settings using the automatic configuration settings. The wizard will check the connection to your modem and attempt to automatically configure your Internet connection settings. If there is a problem with the connection the wizard will provide you with information regarding the problem.


Internet Connection Setup
The Smart Setup Wizard will attempt to detect your Internet connection and configure the settings automatically.
Automatic Configuration
Select Manual Configuration if you wish to configure your settings manually.
Manual Configuration
NEXT

More advanced users may choose to configure their connections manually by selecting Manual Configuration. DSL users may require additional login information. Select the appropriate connection type and enter the required information.

Click Next to continue.

If there was a problem with the Automatic Configuration, the wizard will notify you of the issue. If you continue to have problems, contact our support department at 888-573-8820.

Internet Connection > Automatic Configuration Failed
The Smart Setup Wizard cannot find the cable connection to your modem. Please check that
Internet
Modem

If the Automatic configuration was successful, you will be directed to a Configuration Successful page.

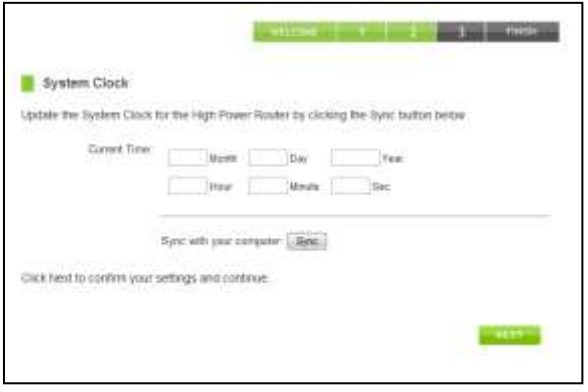
Click Next to continue.

Internet Connection > Automatic Configuration Successful
The Smart Setup Wizard has successfully configured your Internet connection
Internet
Modem
Please press Next to continue

Set the System Clock

The System Clock is used for system logs and setting schedules for Internet access. Click Sync to synchronize the System Clock with the time on your computer.

Click Next to continue.



Configure your Wireless Settings

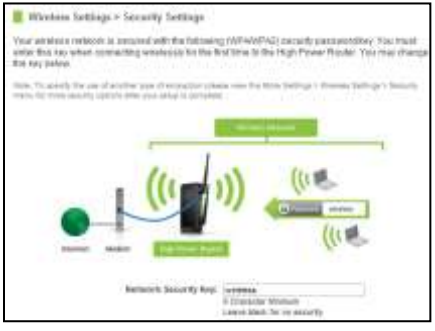
The default SSID of the High Power Router is "Amped_Network"

To change it, enter a new name in the SSID field. Users connecting wirelessly to the High Power Router will use this ID to identify your wireless network.

The default Security Key (WPA/WPA2) for your wireless network is "wireless".

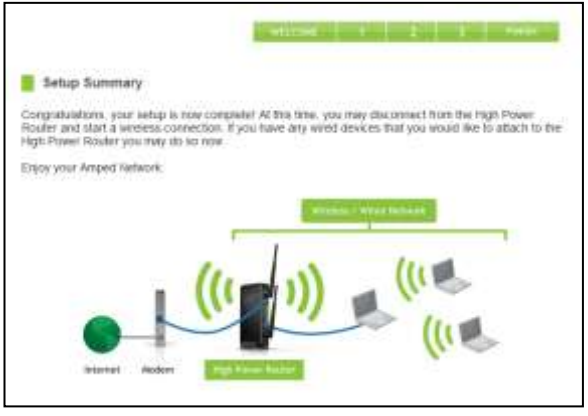
To change it, enter a new key in the Security Key field. The key must be 8-characters minimum.

Click Next to apply your settings. The High Power Router will reboot. This process may take up to 1 minute. The page will automatically reload after the countdown. If it does not, you may need to refresh the page manually or check your connection to the router.



Setup Summary

Once the High Power Router has rebooted, it will load the Setup Summary page and provide you with the details of your setup.



Open a new web browser window and check that you have access to the Internet.

At this time, you may disconnect from the High Power Router and start a wireless connection.

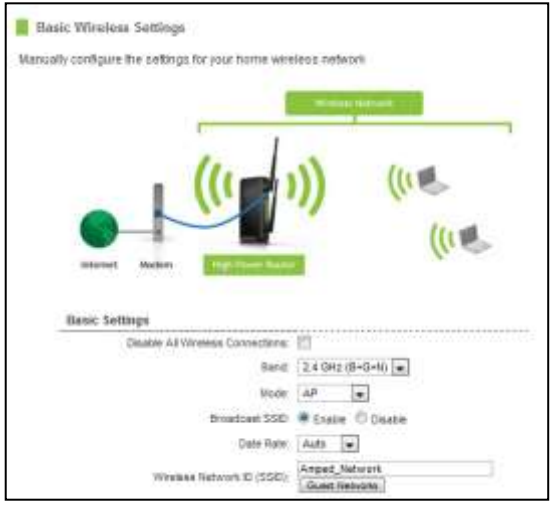
If you have any wired devices that you would like to attach to the High Power Router you may do so now as well.

Enjoy your Amped Wireless network.

WIRELESS SETTINGS

Wireless Settings: Basic Settings

The Basic Settings page allows you to adjust settings for your local wireless network.



Disable All Wireless Connections: Disabling Wireless will turn off all Wi-Fi activity. Users will no longer be able to connect wirelessly to your network.

Band: Select the compatible Wi-Fi standard and speed for your wireless network

Broadcast SSID: Selecting Disable Broadcast SSID will hide the visibility of the router's SSID. Users must manually enter the SSID to connect.

Data Rate: Sets the maximum wireless data rate that your network will operate on.

Wireless Network ID (SSID): The name of your wireless network.

Channel Number: Wi-Fi networks operate on specific wireless channels. Some network channels may have more interference than others. If your performance is unstable, try a different channel number. If you are using a repeater with this network, it is recommended you set a static channel, instead of using "Auto."

WMM: Prioritizes multimedia data over the wireless network.

Associated Clients: Shows the active users connected wirelessly to your network.

Wireless Settings: Basic Settings: Guest Networks

Guest Networks: You may add additional names (SSID) to your Wireless Network with different characteristics for each SSID.

Each additional Network or SSID can have its own security, band and data rate settings. You may restrict users to specific SSIDs or provide access only to some users with lower bandwidth by changing the band (i.e. only allow 802.11b access to specific users).

Guest Networks may also be set with restrictions so that guests can only access the Internet and not the local network.

Associated Clients: View all computers and network devices that are connected to your network wirelessly.

Wireless Settings: Security Settings

The Security page allows you to change the type of wireless security settings for your wireless network.

Using the drop down menu, you can select which network you wish to configure and may adjust the security settings below.

If you are using the Guest Network feature, you will be able to adjust the security settings for your additional SSIDs as well.

Encryption Types:

WEP is rated as a low level encryption and is compatible with all wireless devices and operating systems. Using WEP may slow down your wireless performance.

WPA is a medium level encryption and is supported by most wireless devices and operating systems.

WPA2 is a high level encryption and is supported by most wireless devices and operating systems.

WPA Mixed Mode allows the use of both WPA and WPA2 at the same time.

If you are not sure which encryption type to use, we recommend you choose WPA/WPA2 Mixed Mode.

Wireless Settings: Advanced Settings

Advanced Wireless Settings should only be adjusted by technically advanced users. It is not recommended that novice users adjust these settings to avoid degrading wireless performance.

Advanced Settings
Advanced wireless settings are for technically advanced users. It is recommended that these settings not be changed unless it is understood what the effects will be on your local wireless network.
Fragment Threshold: 2346 (256-2346)
RTS Threshold: 2347 (0-2347)
Beacon Interval: 100 (25-1024 ms)
Preamble Type: Long Preamble / Short Preamble
IAPP: Enabled / Disabled
Protection: Enabled / Disabled
Aggregation: Enabled / Disabled
Short GI: Enabled / Disabled
WLAN Partition: Enabled / Disabled
STBC: Enabled / Disabled
20/40MHz Coexist: Enabled / Disabled

Fragment Threshold: The default and recommended setting is at 2346, meaning the High Power Router will never fragment any frames that it sends to wireless users.

RTS Threshold: Adjusts the size of RTS data packets. Lower values reduce throughput, but allow the system to recover quicker from interference/collisions. Higher values provide the fastest throughput.

Beacon Interval: Indicates the frequency interval of the beacon. A beacon is a packet broadcast by the router to synch the wireless network.

Preamble Type: Defines the length of the Cyclic Redundancy Check for communication between the router and roaming wireless users.

IAPP: Inter-Access Point Protocol

STBC: Space Time Block Coding improves reception by coding the data stream in blocks.

Wireless Settings: Wi-Fi Protected Setup (WPS)

WPS is a Wi-Fi feature created to make Wi-Fi setup simple and easy. Some wireless routers and adapters support this feature with varying names (i.e. one touch setup or WPS).

Enable Wi-Fi Protected Setup
Option A: If your wireless user has a Wi-Fi Protected Setup button, click or press the WPS PBC (Push Button Configuration) button here
Start PBC
Option B: If your wireless device requires a WPS PIN number to join the wireless network, use this PIN: 89956042
Option C: If your wireless user has a Wi-Fi Protected Setup PIN number, enter that number here
and then click Start PIN

You may enable WPS setup here by selecting the type of WPS setup you wish to use. The High Power Router supports all types of WPS setup:

Option A: Push button: You may push the WPS button on the web menu or use the physical button on the back of the High Power Router.

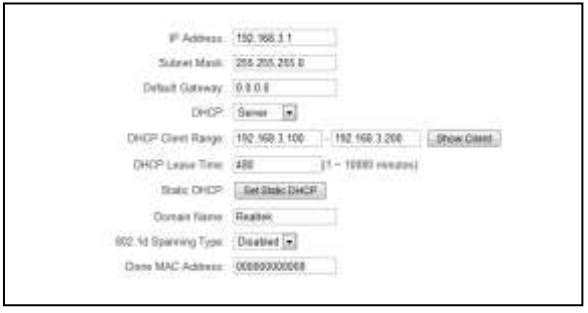
Option B: PIN: Some wireless devices use PIN number to access wireless network. If your wireless device requests for a PIN number, use the PIN code located here.

Option C: Enter PIN: Some wireless devices require that you use a PIN number to add them to the wireless network. If your wireless device has a PIN number here.

NETWORK SETTINGS

Network Settings: Local Network (LAN)

These settings are for your local network only and do not apply to your Internet / ISP connection.



IP Address: The IP address of the High Power Router.

Subnet Mask: The subnet of the High Power Router.

Default Gateway: The access point to another network.

DHCP: Each network device on your local network will have its own IP Address. The DHCP server automatically assigns the IP addresses to each device connected to your network. Disabling DHCP will require that each device on your network be assigned a manual or static IP address.

DHCP Client Range: The range of IP addresses provided by the DHCP server is defined by this field. You can limit how many IP addresses are used in your network by setting a smaller or larger range.

DHCP Lease Time: The amount of time each device is given a specific IP is decided by the DHCP lease time.

After the Lease Time expires, the DHCP server will assign another IP address to the device.

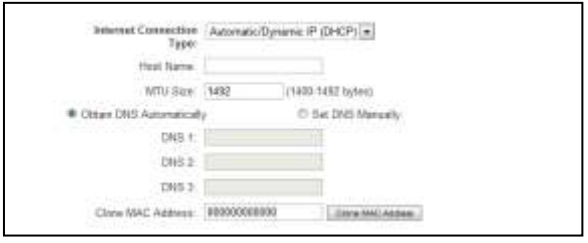
Set Static DHCP: This allows specific devices to be given a specific IP address each time the device connects to the network. The DHCP server will always assign the same IP address to the same device. This feature is often used for shared devices such as network printers or servers.

802.1d Spanning Type (STP): A network protocol that ensures a loop-free topology for networks that have Ethernet bridges. The STP prevents bridge loops and allows a network design to include redundant links to provide automatic backup paths if active links fails.

Clone MAC Address: The High Power Router can use a MAC address that you define as its own. This is often used when an Internet Provider only authorizes one MAC address to access the Internet. Cloning the MAC address will make it so that the cloned MAC address is the only MAC address seen by the Internet Provider.

Network Settings: Internet Network (WAN)

The Smart Setup Wizard will assist you in setting up your Internet connection. However in the case that you wish to adjust settings manually, the options on this page provide you with the tools to do this easily.



Select your Internet Connection type from the drop down menu:

Manual IP (Static): For Internet connections where the Internet provider does not provide you with an IP address automatically. If you know the IP address and DNS settings that your Internet provider uses, select this option.

Automatic/Dynamic (DHCP): This is the configuration type most often used by Internet providers. Automatic configurations are used by both DSL and Cable as well as other providers. Under the Automatic Configuration method, the Internet provider will assign your router an Internet IP address automatically.

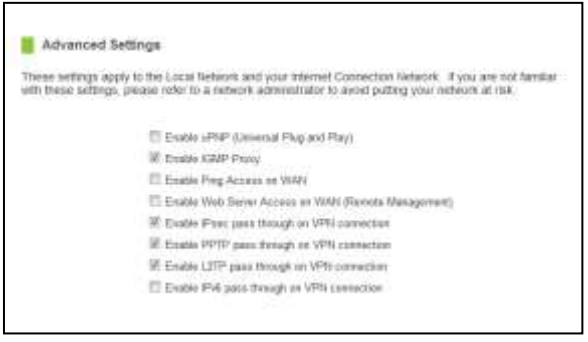
If for some reason you do not get an IP address and you know that your Internet provider uses DHCP, try resetting your Modem. Remove the power adapter from the Modem as well as the backup battery (if

available). Wait about 30 seconds and then power the Modem back on. You can run through the Smart Setup Wizard again to see if that fixes your Internet connection issues.

PPPoE connections normally require login information. If you do not know the settings for your PPPoE connection, please contact your Internet provider.

PPTP and L2TP connections require login information as well as IP address settings. If you do not know the settings for your PPTP / L2TP connection, please contact your Internet provider.

Network Settings: Advanced Settings


Advanced Settings
These settings apply to the Local Network and your Internet Connection Network. If you are not familiar with these settings, please refer to a network administrator to avoid putting your network at risk.
Enable uPnP (Universal Plug and Play)
Enable IGMP Proxy
Enable Ping Access on WAN
Enable Web Server Access on WAN (Remote Management)
Enable IPsec pass through on VPN connection
Enable PPTP pass through on VPN connection
Enable L2TP pass through on VPN connection
Enable IPv6 pass through on VPN connection

These settings apply to the Local Network and your Internet Connection Network. If you are not familiar with these settings, please refer to a network administrator to avoid putting your network at risk.

Enable uPnP: Universal Plug and Play is a network feature that allows uPnP enabled devices to "just work" with each other when connected to the same network. UPnP can work across different network media, such as an Ethernet connection or wireless connection. With UPnP enabled, network devices may change security settings within the High Power Router's firewall to allow access over the Internet. By default, UPnP is disabled to avoid exposing your network to security issues.

Enable IGMP Proxy: Internet Group Management Protocol is a communication protocol used by hosts and routers on the network to establish multicast group memberships. IGMP Proxy is typically used to implement multicast routing and commonly used when advanced protocols such as PIM is not suitable.

Enable Ping Access on WAN: Allows users to ping the WAN interface IP address from the internet.

Enable Web Server Access on WAN (Remote Management): Allows access to the Web Menu over the Internet

Enable IPsec pass through on VPN connection: Allows the IP security protocol suite to pass through on a VPN connection.

Enable IPv6 pass through on VPN connection: Allows the IPv6 protocol suite to pass through on a VPN connection.

SMART FEATURES

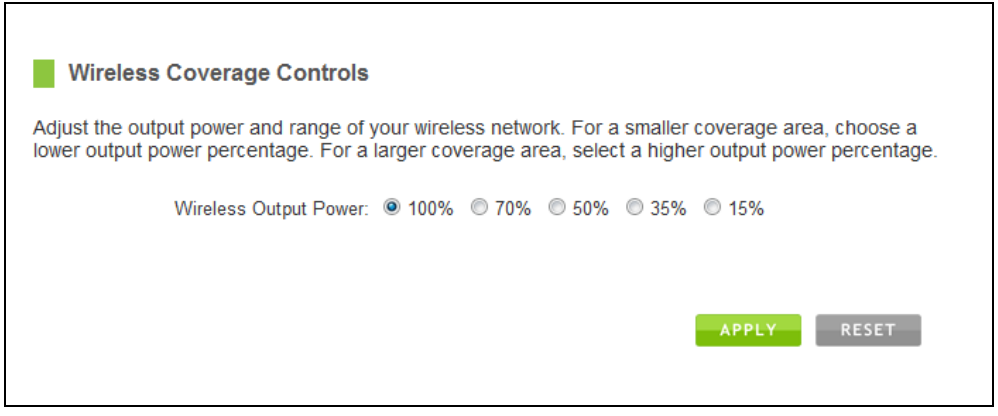
The High Power Router provides your network with Smart Features that help to provide convenience and protection for your wired and wireless network.

The Smart Features allow you to control access of your wireless network through: on/off schedules, specific user authorizations, and wireless coverage control.

These settings apply to your local wireless and wired network.

Smart Features: Wireless Coverage Controls:

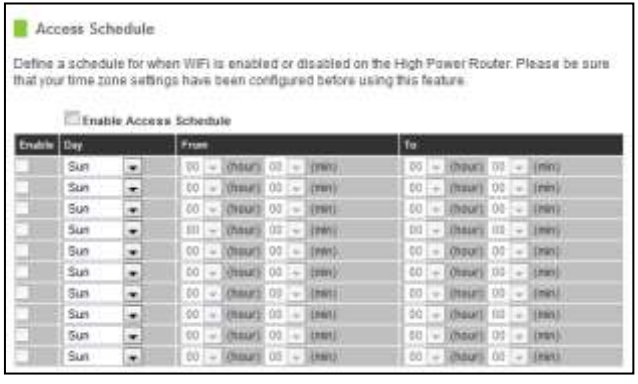
Adjust the output power of the High Power Router to control the coverage distance of your wireless network. For a smaller coverage area you can select a lower output power. For the maximum wireless coverage, select the 100% selection. Note that if you select a lower output power, your connection to your Home Network will also decrease in range. So be careful and test your signal strength after each adjustment.


Wireless Coverage Controls
Adjust the output power and range of your wireless network. For a smaller coverage area, choose a lower output power percentage. For a larger coverage area, select a higher output power percentage.
Wireless Output Power: 100% 70% 50% 35% 15%
APPLY
RESET

Smart Features: Access Schedule

Access Schedules will enable or disable your wireless access at a set time based on your predefined schedule. This feature is often used for restricting access to all users (such as kids, employees, guests) during specific times of the day for parental control or security reasons.

a. Enable Access Schedule
b. Select which days you wish for your Wi-Fi to be available
c. Select the time frame during that day that you wish for Wi-Fi to be available
d. Apply Changes


Access Schedule
Define a schedule for when WiFi is enabled or disabled on the High Power Router. Please be sure that your time zone settings have been configured before using this feature.
Enable Access Schedule
Enable
Day
From
To
Sun
(hour)
(min)

Note: Make sure you have already configured your Time Zone Settings in order for your schedule to work correctly. Time Zone Settings can be adjusted from the web menu under Management > Time Zone Settings.

Smart Features: Block Websites

To block a website, you must first enable URL filtering. After it has been enabled you can begin adding as many websites as you wish into the URL Address field.

Note: If you wish to block www.google.com, simply type in "google" and the High Power Router will block all websites with the text "google" in the URL.

Smart Features: User Access (MAC Address Filtering)

User Access allows you to deny access or allow access to specific users connecting to the network. Each networking device has a unique address called a MAC address (a 12 digit hex number).

By inputting the MAC address into the field, you can define whether that device is allowed into your network or not allowed.

A MAC Address may sometimes be referred to as a Physical Address. Most networking devices have their MAC Address located on a label on the actual device.

For Windows computers with internal networking adapters, the MAC Address can be found by viewing the Network Connection Details of the network adapter. The MAC Address will be listed as the Physical Address.

Be sure to enter the MAC Address without any symbols. For example, a MAC Address of 78-DD-78-AA-78-BB would be entered as 78DD78AA78BB.

Smart Features: User Access (IP Address Filtering)

User Access (IP Filtering) is similar to User Access (MAC filtering) except that the High Power Router uses the local IP address to filter the specific data from the specified network protocol. For example, if you chose to block TCP data packets from a specific computer, you would need to figure out what that device's IP address is and select TCP from the Protocol drop down menu.

If you are not sure which Protocol to filter, select "Both" as your Protocol selection.

FIREWALL SETTINGS

The High Power Router's Firewall is designed to prevent unauthorized users from accessing your network. This section will go over the different features of the Firewall and how to configure them.

Firewall Settings: Port Filtering

Port Filtering
Port Filtering allows you to enable or disable TCP ports and UDP ports on computers or network devices. Port Filtering insulates your local computers from many TCP/IP security attacks, including internal attacks by malicious users.
Enable Port Filtering
Port Range:
Protocol:
Both
Comment:

Port Filtering is a security measure that prevents users from using specific ports for reasons other than what those ports were originally intended for. For example, TCP port 21 is traditionally used for FTP. However, there is nothing stopping a user from using port 21 for purposes other than FTP access. By enabling Port Filtering on TCP port 21, only FTP communications would be allowed. No other types of communication would be allowed on this port.

Hackers may sometimes scan for all open ports on your network as a method of hacking into your network. Port Filtering and other firewall features help to prevent this from happening.

To set up Port Filtering, select a range of ports you wish to filter. If you are trying to filter a single port, enter the port number twice. (For example, Port 21: 21 – 21) Select the Protocol of the port you are filtering. If you do not know what protocol you wish to filter, select "Both."

Firewall Settings: Port Forwarding

Port Forwarding is a rule that tells the High Power Router that if a specific type of request comes in on a specific port, then that request should be forwarded to a specific device on the private network.

Port Forwarding is often used for setting up servers, cameras and other devices that require remote access.

Port Forwarding
Port Forwarding allows you to automatically redirect common network services to a specific network device or computer on your local network. These settings are useful for hosting web servers, mail servers, network cameras and other specific network server devices behind your network firewall.
Enable Port Forwarding
IP Address:
Protocol:
Both
Port Range:
Comment:
APPLY
RESET

Enable Port Forwarding: Enables designated ports to begin forwarding.

IP Address: The IP address of the device behind the Firewall that is being designated for Port Forwarding.

Protocol: Select UDP, TCP or Both for the protocols to be forwarded.

Port Range: Select a range of ports for the designated IP address that you wish to be forwarded.

Comment: Create a name that you can use to easily identify this Port Forwarding entry.

Firewall Settings: DMZ (Demilitarized Zone)

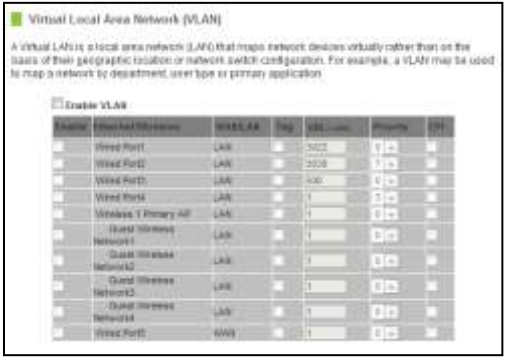
A DMZ is a network location or IP Address that is not protected by the firewall. When enabling DMZ it is important to note that the device on the IP Address designated as part of the DMZ does not have any protection from the High Power Router's firewall. The device's only security would be those built into the operating system.

As a general safety rule, devices placed on the DMZ should not have any other network connections to any other devices.

Enable DMZ: Enables the Demilitarized Zone.

DMZ Host IP Address: The designated IP Address of the network device to have unrestricted access through the High Power Router's Firewall.

Firewall Settings: Virtual LAN



A VLAN has the same attributes as a physical local area network (LAN) but it allows for devices to be grouped together even if they are not located on the same physical network switch. The benefit of a VLAN is that it allows network traffic to flow more efficiently for computers or network devices that are within sections of mutual interest. In addition, changes to the VLAN can be made virtually via a user interface rather than manually changing cables and network switches.

VLAN are often used to segment network devices based on their department, user types or common applications. Bandwidth can then be more easily managed by adjusting the bandwidth to specific VLANs based on their priorities.

Firewall Settings: Denial of Service

A Denial of Service attack is an attempt by a user (or users) to make a server's or network's services unavailable. The user sends a server multiple requests with false return addresses.

The server will attempt to respond by sending a request back to the user; however, since the address is false, the server will wait for a response before closing the connection. When multiple requests like this occur, servers may often get overloaded with too many requests and stop functioning all together. This is a typical DoS attack, although DoS attacks may not be limited to this type of attack.

The High Power Router can assist in preventing these types of attacks by scanning the network for patterns of activity that represent DoS attacks. If a pattern comes in frequently, the High Power Router can attempt to block messages containing that pattern and thus protect the server from becoming overloaded and unresponsive.

QUALITY OF SERVICE

QoS prioritizes and guarantees network performance for a specific IP Address range or MAC Address. QoS is often used for applications that require steady bandwidth. Common applications include VoIP phones, video streaming applications (i.e. DVRs, network cameras, video on demand), online gaming and servers.

It is important to note that while QoS helps to prioritize and guarantee bandwidth for a specific device, it does not provide you with more bandwidth than you currently have. For example, if your Internet Provider rates your internet connection speed at 5Mbps, QoS will not improve that connection. QoS helps you better manage the 5Mbps that you have so that the bandwidth is prioritized for devices on your network that may need the provided 5Mbps more than other devices. However, if you have an application that requires more than 5Mbps of steady bandwidth, the application will continue to experience "lag" with or without QoS since your available bandwidth is less than the required bandwidth of your application.

MANAGEMENT FEATURES

The Management Features on the High Power Router allow you to view the status of the system, your Internet connection, wireless network and local area network.

The Network Statistics page provides detailed traffic data for each connection type.

Management: System Status

The System Status provides you with a snapshot of your High Power Router's current connections and settings.

The System Information section provides you with the router's firmware version and build. This is used to help our support department determine what firmware version your device is running. The Current Date / Time is the setting for the system clock. If this time is off, go to the System Clock section and configure your system time.

The Internet Connection Status displays the information from your Internet Provider. If for some reason your Internet connection stops working, you may try to "Release the IP Settings" and then "Renew the IP Settings" to attempt to obtain new settings from your Internet Provider. If this fails to fix your Internet connection you may want to try running through the Smart Setup Wizard again or contact our support department at 888-573-8820.

The Wireless Settings shows the details of the wireless network.

The Local Area Network settings display the current configurations for local network IP address and DHCP server settings.

Management: Network Statistics

Network statistics shows the data activity for each connection type on the High Power Router (Internet, Wireless and Wired).

The Internet Connection statistics show the data activity for all upload and download data over your Internet connection.

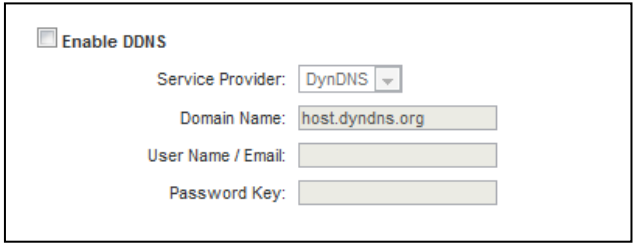
The Wireless Connection statistics shows all data activity for all wirelessly connected users.

The Wired Connection statistics shows all data activity for all users physically connected to the wired ports on the High Power Router.

Management: Dynamic DNS Settings

The Dynamic Domain Name System (DDNS) is a method to keep a web domain name, or web address, linked to a changing IP address as most Internet Providers do not provide static IP addresses.

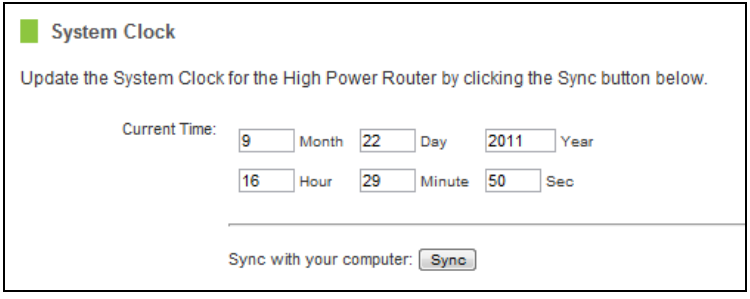
To use DDNS, you must first set up an account with a DDNS provider. The High Power Router supports two of these providers (TZO and DynDNS). Once the DDNS service has been set up and configured correctly on the High Power Router, the DDNS service will constantly track the IP address of your Internet connection. Each time your Internet Provider changes your IP address, the High Power Router will inform the DDNS service and the DDNS service will update your new IP address. The DDNS web domain that you have chosen to use will then be updated to redirect to your new Internet IP address.



The DDNS service makes it so you never have to check or remember your Internet IP address. This feature is typically used for users running servers, network cameras and other devices that require remote access.

Management: System Clock

Maintain the internal clock for the High Power Router by syncing with your computer's time. Your system clock settings need to be accurate in order for logs and wireless access schedules to work correctly.



Management: System Logs

The System Log is useful for viewing the activity and history of your High Power Router. The System Log is also used by Amped Wireless technicians to help troubleshoot your router when needed. It is recommended that you enable all logs in the event that troubleshooting is required.

All log entries will be deleted each time the High Power Router reboots or is powered off.

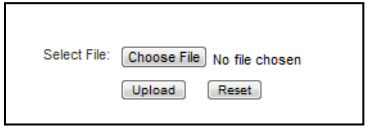
Management: Upgrade Firmware

Amped Wireless continuously updates the firmware for all products in an effort to constantly improve our products and their user experiences. Check the Downloads page for your product frequently to see if there are any updates.

The firmware update is downloaded as a zip file from the Support Webpage link on the left. You will need to have an unzipping program to open the file. Inside the file will be a text document with details on the current firmware release and instructions on how to upgrade the firmware.

To manually upgrade your firmware:

a. Download the file from the www.ampedwireless.com/support website and remember the location where you saved it. Firmware files may also be provided by Amped Wireless support reps.
b. Click Browse and locate the file
c. Click Upload to begin upgrading.



Note: Firmware files normally have a .bin file extension.

Management: Save and Reload Settings

Saving your current settings allows you to back-up your current settings which may be reloaded at a later time. This feature may be useful for testing new features and settings without having to worry about returning to a stable platform.

Save/Reload Settings
Save your current High Power Router configurations to a file or reload previously saved configurations. If needed, you may also reset your High Power Router to factory default settings.
Save Settings to File:
Save
Load Settings from File:
Choose File
No file chosen
Upload
Reset Settings to Default:
Reset

To save current settings:

a. Click Save
b. Select a file name and location

To load previously saved settings:

a. Click Browse
b. Locate the previously saved settings file
c. Click Upload to restore the settings to the saved file.

You may also reset the High Power Router's settings to factory settings by pressing Reset. By resetting the High Power Router you will lose all previous configurations and will need to run the Smart Setup Wizard again to reconnect to a Home Network.

Management: Password Settings

The default settings for the High Power Router are:

Login: admin
Password: admin

If you wish to enable a password to protect unauthorized access to the web menu and Smart Setup Wizard, you may enter one here.

Password
Prevent unauthorized access to your High Power Router's web-based configuration menu by providing a user name and password. If no protection is necessary, leave these fields blank and you will not be prompted for a login and password when accessing this web menu.
New Login:
New Password:
Confirmed Password:
APPLY
RESET

TECHNICAL SPECIFICATIONS

Wireless Standard: 802.11n, 802.11b/g
Frequency Band: 2.4 GHz
Wireless Speed: 300Mbps (Rx), 300Mbps (Tx)
Amplifier: 600mW Dual High Power Amplifier
Dual Low Noise Amplifier
Wireless Sensitivity: -94dBm
Wireless Output Power: Up to 29dBm
Wireless Security:

- WEP, WPA, WPA2, WPA Mixed, WPS

Wireless Coverage Control:

- 15% - 100% Output Power

Antennas:

- 2 x Detachable High Gain 5dBi Antennas
- 2 x Reverse SMA Connector

Ports:

- 4 x RJ-45 10/100 LAN ports
- 1 x RJ-45 10/100 WAN ports

Mounting:

- Wall, Stand or Desktop

Warranty: 1 Year

Setup Requirements:

- Wired or wireless PC/Mac
- Google Chrome, Internet Explorer (8.0 and up) or Safari web browser

DEFAULT SETTINGS

The default settings for your High Power Router are listed here. If for some reason you need to return your High Power Router back to default settings, hold down the Reset button on the back panel for 10 seconds. The High Power Router will reset back to factory settings as listed below:

IP Address: 192.168.3.1

Web Menu Access: http://setup.ampedwireless.com

SSID: Amped_Network

Security Key (WPA/WPA2 Mixed Mode): wireless

TROUBLESHOOTING AND SUPPORT INFORMATION

We are here to help. If you have any issues with your High Power Router please contact us.

To contact Amped Wireless' Technical Support use one of the following methods:

Phone: 888-573-8820

Email: techsupport@ampedwireless.com

Web: www.ampedwireless.com/support

Troubleshooting

The tips in this guide are listed in order of relevance. Try solution (a) before trying solution (b), etc.

Troubleshooting: Web Menu Issues

I entered setup.ampedwireless.com and it failed to open the Web Menu.

a. Make sure your computer is connected to the High Power Router using the included Ethernet cable. Do not try to connect with a wireless connection. Ensure that the power on the High Power Router is on.
b. Check that your computer IS NOT connected to any wireless networks. If it is, disable your Wi-Fi connection and disconnect from all wireless networks. Reboot the router and try again.
c. Close your current web browser and reopen it. Use Google Chrome or Internet Explorer (v8.0 and up).
d. Open your web browser and enter 192.168.3.1 into the web address bar.
e. Reset the High Power Router to default settings by holding the Reset Button (located on the back panel) for ten (10) seconds and try again.

I have entered setup.ampedwiress.com but I cannot enter the Web Menu. I am prompted for a login and password but it does not let me continue.

a. Check that you are using the right login and password. If this is your first time accessing the Web Menu, use the default login and password: (Login: admin, PW: admin)
b. If you forgot your login and password for the Web Menu, reset the High Power Router to default settings and try again. To reset the High Power Router to default:
   - On the back panel of the router find the Reset button.
   - Use a pen tip to hold down the reset button for 5 to 10 seconds.
   - The router will reinitialize and restore its default settings.

I am having problems with features on the Web Menu. When clicking buttons, it does not register my action.

a. Check that you are using a supported web browser: Google Chrome, Internet Explorer (8.0 and up) and Safari. If you are using an unsupported web browser, such as Firefox, please change to one of the supported web browsers and try again.

Troubleshooting: Internet Connection Issues

The Smart Setup Wizard could not automatically configure my Internet connection.

a. Reset your modem by holding down the reset button located on the back of the modem for approximately five seconds. Try the automatic configuration again.
b. Go to the Status page and Release and Renew your IP address. To access the Status page, go to More Settings > Management > System Status.
c. Static IP: Your Internet connection may require a static IP setting. Check with your ISP to obtain the IP settings.
d. DSL Connections: Your Internet connection may require login information. If you are using PPPoE mode, you will need to manually configure your Internet connection settings and obtain your username and password.
e. Cable Modem: Your Internet connection may require you to clone your MAC address. Go to More Settings > IP Settings > Internet Network (WAN) and select Automatic/Dynamic (DHCP) from the drop down menu. Clone your PCs MAC address under the DNS settings.

I have gone through the Setup Wizard and I do not have Internet.

a. Detach the power adapter and disconnect all computers from the High Power Router.
   Turn off the power to your modem and remove the backup battery (if available).
   Wait 2 minutes and power the modem back on. Wait 2 minutes for the modem to initialize.
   Power on the High Power Router and connect your computer to the router.
   Open your web browser and try to access the Internet.

b. Check that your Internet connection is working. Power off the High Power Router and disconnect your computer from the router.
   Turn off the power to your modem and remove the backup battery (if available).
   Wait 2 minutes and power the modem back on. Wait 2 minutes for the modem to initialize.
   Attach your computer directly to the modem and power on your computer.
   Open your web browser and check to see if you can go online. If you cannot go online, there may be a problem with your Internet provider. Please contact your Internet provider to troubleshoot your connection issues.

My Internet connection is unstable and drops intermittently.

a. Power off your computer, the High Power Router and your modem.
   Power on your modem and wait 2 minutes.
   Power on the High Power Router and wait 1 minute for the router to initialize.
   Power on your computer and try again.
b. Check to see if other computers are also having this problem. If they are not, check to see if your anti-virus software or firewall software is conflicting with your Internet connection. You may also try temporarily disabling all firewalls or anti-virus software to see if that is what is causing the problem.
c. If you have a PPPoE or another Internet connection requiring login credentials, you may need to adjust the reconnection or time out settings. Go to the IP Settings > Internet Connection (WAN) page and configure your Internet connection to automatically reconnect.
d. If you are using Windows XP, check that your computer is using Service Pack 2 or greater. Windows XP users with Service Pack 1 may experience intermittent wireless connections.

My Internet connection is abnormally slow.

a. Check with your Internet provider to ensure that they are not experiencing system wide issues.
b. Check with speedtest.net to see the speed of your Internet provider. Connect directly to your modem with your computer and check speedtest.net again. If the speed results are the same, the issue is with your Internet provider. Please contact your provider to troubleshoot the issue.
c. Check the Internet connection speed on another computer that is connected to the High Power Router. If the other computer does not have Internet speed problems, the networking equipment or operating system on your original computer may be outdated or may be experiencing problems. Viruses and other software may slow down a computer's overall speed significantly.
d. If you are using a wireless connection to the High Power Router, check that your wireless signal strength is above 3 bars. If not, you may need to move closer to the High Power Router.

Troubleshooting: Local Network Issues

My computer is getting an IP address of 169.254.x.x and Windows says "Limited or no Connectivity."

a. Make sure the High Power Router is powered on.
b. Check that your computer's network adapter is enabled and is set to "Obtain IP Address Automatically."
c. Release and Renew your IP Address on your computer. To do this on a Windows computer:
   - Click Start>Run and type CMD
   - When the command prompt appears, type ipconfig/release and press enter
   - Type ipconfig/renew and press enter
   - Check that your computer's network adapter has an IP address of 192.168.3.x
d. Restart your computer and check again.
e. Restart the High Power Router and check again.
f. Make sure DHCP is enabled in the High Power Router's Web Menu (Go to More Settings > IP Settings > Local Area Network (LAN) > DHCP Settings.
g. Check that your Firewall or Anti-Virus software is not preventing you from accessing shared devices on you network.

Troubleshooting: Wireless Issues

I am only getting 3 or 4 wireless signal bars on my wireless computer and I am within 10 feet of the wireless router.

a. Step back at least 10 feet from the High Power Router and check your signal again. The High Power Router emits high power, long range Wi-Fi signals that may confuse your wireless adapter signal reading at close range. The speed and signal are at 100%, however your readout may not be displaying the data correctly.
b. Change the wireless channel on the High Power Router to 11 or 1 and try again. There may be interference in your installation environment.

I am not getting a strong wireless connection from all distances from the wireless router.

a. Check to see that your antennas are secured tightly to the High Power Router.
b. Check if other computers are experiencing the same issue. If not, the wireless adapter in your computer may be experiencing problems or maybe older and have poor wireless performance.
c. Avoid placing the High Power Router near or around Microwaves and 2.4GHz wireless phones.
d. Avoid using wireless channels that are crowded. Change the wireless channel on the High Power Router.

e. Place the High Power Router in a higher location near the center of your desired coverage location.
f. Position the antennas on the High Power Router in opposite orientations.

My wireless adapter does not connect at the maximum wireless speed.

a. Your wireless network adapter may be outdated and have older wireless technology not capable of achieving the wireless network speeds of the High Power Router. To achieve maximum wireless speeds, it is required that you have a 802.11n wireless adapter.
b. Check that you are using the latest Wi-Fi security type: WPA or WPA2
   WEP security may slow down your wireless speeds.
c. Check that the High Power Router's wireless data rate is set to auto or 11N data rate speeds.
d. Wireless speeds degrade as you get further away from the wireless router.
e. Check that the wireless channel set on the High Power Router is not crowded. Try changing the wireless channel to another channel and test the speed again.
f. Do not use Internet websites (i.e. speedtest.net or other websites) to test your wireless speeds. Speed test websites measure your Internet connection speed, which is controlled by your Internet provider. Wireless speeds are for your local network and not your Internet connection. To test wireless speeds, a local test or file transfer will be required to test the true wireless speed.

I cannot connect my Windows Vista computer to the wireless network. I enter my wireless password and I see an error.

a. Manually add a wireless network to your Vista computer:
   - Click Start, and then click Network.
   - Select Network and Sharing Center.
   - Click Manage Wireless Networks.
   - Click Add and select Manually create a network profile.
   - Type in the SSID, and select the type of security and enter your security key.
   - Select "Start this connection Automatically" and click Next.
   - Go to Network and Sharing Center and select Manage Network Connections.
   - Right click Wireless Network Connection and then select Status.
   - Click details and check to see that your IPv4 IP address is correct (192.168.3.x).

b. Disable IEEE 802.1x authentication on your computer.

I cannot connect my Windows XP computer to the wireless network. I enter my wireless password and I see an error.

a. Make sure your computer has the latest Windows Service Pack. Windows Service Pack 1 does not support WPA security. Upgrade to the latest Service Pack to support the latest wireless encryption.
b. Manually add a wireless network to your XP computer.
c. Disable IEEE 802.1x authentication.

WARRANTY AND REGULATORY INFORMATION

The Amped Wireless (A division of Newo Corporation, Inc.) Limited Warranty

Warranty Period: The Amped Wireless Limited Warranty is for one (1) year from the date of purchase for new products. Refurbished products carry the Limited Warranty for thirty (30) days after the date of purchase.

Guarantee: Amped Wireless warrants to the original purchaser that the hardware of this Amped Wireless product shall be free of defects in design, assembly, material, or workmanship.

Conditions: The Amped Wireless Limited Warranty is for repair or replacement only at the sole discretion of Amped Wireless. Amped Wireless does not issue any refunds for purchased product. In the event that Amped Wireless is unable to repair or replace a product (i.e. discontinued product), Amped Wireless will offer a credit toward the purchase of a similar product of equal or lesser value direct from Amped Wireless. Any repaired or replacement products will be warranted for the remainder of the original Warranty Period or thirty (30) days, whichever is longer. Amped Wireless reserves the right to discontinue any of its products without notice, and disclaims any limited warranty to repair or replace any such discontinued product. Amped Wireless reserves the right to revise or make changes to this product, its documentation, packaging, specifications, hardware, and software without notice. If any portion of the Amped Wireless Limited Warranty is found to be

unenforceable, its remaining provisions shall remain in effect. All costs of shipping the product to Amped Wireless shall be borne solely by the purchaser.

Limitations: IN NO EVENT SHALL AMPED WIRELESS' (NEWO CORPORATION'S) LIABILITY EXCEED THE AMOUNT PAID BY YOU FOR THE PRODUCT FROM DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, ITS ACCOMPANYING SOFTWARE, ACCESSORIES OR ITS DOCUMENTATION. The Amped Wireless Limited Warranty does not apply if: (a) the product assembly has been opened or damaged, (b) the product or its software or firmware has been altered or modified, (c) the product has not been used and installed in accordance to Amped Wireless' instructions, (d) the product has been subjected to misuse, or negligence. Amped Wireless does not guarantee the continued availability of a third party's service for which this product's use or operation may require. The Amped Wireless Limited Warranty does not protect against acts of God, vandalism, theft, normal wear and tear, obsolescence and environmental damages such as, but not limited to, weather and electrical disturbances. The Amped Wireless Limited Warranty is the sole warranty for this product. There are no other warranties, expressed or, except required by law, implied, including the implied warranty or condition of quality, performance merchantability, or fitness for any particular purpose.

How to Claim Warranty: In the event that you have a problem with this product, please go to www.ampedwireless.com/support to find help on solving your problem. In the event that you cannot and need to file a warranty claim, please call Amped Wireless' Customer Service or visit

www.ampedwirleess.com/support to fill out a Return Authorization (RMA) form and obtain a Return Authorization (RMA) number. A dated proof of original purchase and the RMA number is required to process warranty claims. You are responsible for properly packaging and shipping the product at your cost and risk to Amped Wireless. The bearer of cost related to shipping repaired or replaced product back to the purchaser will be at the sole discretion of Amped Wireless and determined based on the details of each RMA case. Customers outside of the United States of America are responsible for all shipping and handling costs including custom duties, taxes and all other related charges.

Technical Support: The Amped Wireless Limited Warranty is not related to the terms, conditions and policies of Amped Wireless' Technical Support offerings. For questions regarding support, please contact techsupport@ampedwireless.com.

Regulatory Information

FCC Statement and Declaration: Amped Wireless declares that this device complies with Part 15 of the FCC Rules and Regulations. Operation of this device is subject to the following two (2) conditions:

(1) This device may not cause harmful interference
(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Notice: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution and Safety Notices: Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter. Avoid use of this product near water or during an electrical storm as there may be a remote risk of electrical shock from lighting. This product may contain lead, known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling. This device must always be used with a Listed Computer or device.